predetermined type of oligonucleotide upon contact with a solution containing such predetermined type of oligonucleotide.

32. The assay plate of claim 31 wherein said predetermined type of oligonucleotide comprises a nucleic acid and said known oligonucleotide comprises a nucleic acid.

33. The assay plate of claim 31 wherein said predetermined type of oligonucleotide and said known oligonucleotide comprise a complementary pair.

34. The assay plate of claim 31 further comprising a moisture proof covering for protecting said dried aliquot from moisture during the storage of said assay plate.

35. The assay plate of claim 31 further comprising a dried aliquot of a second known oligonucleotide, said dried aliquot of said second known oligonucleotide being at a different location on said substrate that said dried aliquot of said first known oligonucleotide, said second known oligonucleotide binding a second predetermined type of oligonucleotide in a solution.

36. A method for making an assay plate for detecting the presence of a mobile oligonucleotide that binds to an immobilized known oligonucleotide, said method comprising the steps of:

covalently binding said known oligonucleotide to a fused silica substrate to immobilize the known oligonucleotide;

washing said substrate to remove any of said known oligonucleotide that fails to bind to said substrate; and

drying said substrate and said bound immobilized oligonucleotide.

37. The method of claim 36 wherein said mobile and immobilized oligonucleotides comprise nucleic acids.

38. The method of claim 36 wherein said mobile oligonucleotide and said known oligonucleotide comprise a complementary pair.

39. The method of claim 36 further comprising the step of packaging said substrate in a moisture proof covering for protecting said immobilized oligonucleotide from moisture during the storage of said assay plate.

40. The method of claim 36 wherein the step of covalently binding the immobilized oligonucleotide to a fused silica substrate comprises:

coating the substrate with a solution of amino propyl triethoxy silane;

linking the oligonucleotide that is to be immobilized to a linker;

depositing the linked oligonucleotide to the coated substrate; and

incubating the substrate.

41. A method for detecting a mobile nucleic acid comprising the steps of:

providing an assay plate of fused silica having a dried aliquot of an immobilized nucleic acid covalently bound thereon, said immobilized nucleic acid binding said mobile nucleic acid when both said immobilized nucleic acid and said mobile nucleic acid are in a wet state;

bringing a solution containing said mobile nucleic acid into contact with said dried aliquot;

washing said assay plate;

treating with a dye that binds to one of said immobilized nucleic acid or said mobile nucleic acid; and

determining the amount of mobile nucleic acid bound to said washed assay plate by measuring the dye.

42. The method of claim 41 further comprising the step of drying said washed assay plate prior to determining the amount of mobile nucleic acid bound to said washed assay plate.

43. The method of claim 41 wherein the step of determining the amount of mobile nucleic acid is performed without adding water to the dried assay plate.

44. The method of claim 41 wherein the step of treating with dye comprises binding the dye to the mobile nucleic acid prior to bringing the solution into contact with the dried aliquot.

45. The method of claim 41 wherein the step of treating with dye comprises depositing the dye on the dried aliquot after bringing the solution into contact with the dried aliquot.

46. A method for making an assay plate for detecting the presence of a mobile oligonucleotide that binds to an immobilized known oligonucleotide, said method comprising the steps of:

covalently binding said known oligonucleotide to a fused silica substrate to immobilize the known oligonucleotide;

washing said substrate to remove any of said known oligonucleotide that fails to bind to said substrate; and

drying said substrate and said bound immobilized oligonucleotide,

wherein the step of covalently binding the immobilized oligonucleotide to a fused silica substrate comprises:

coating the substrate with a solution of amino propyl thriethoxy silane;

linking the oligonucleotide that is to be immobilized to a linker;

depositing the linked oligonucleotide to the coated substrate; and

incubating the substrate, and

wherein the step of coating the substrate comprises coating a surface of the substrate with a one percent solution of amino propyl triethoxy silane in ninety-five percent ethanol, and incubating at room temperature in a covered enclosure.

47. A method for making an assay plate for detecting the presence of a mobile oligonucleotide that binds to an immobilized known oligonucleotide said method comprising the steps of:

covalently binding said known oligonucleotide to a fused silica substrate to immobilize the known oligonucleotide;

washing said substrate to remove any of said known oligonucleotide that fails to bind to said substrate; and

drying said substrate and said bound immobilized oligonucleotide,

wherein the step of covalently binding the immobilized oligonucleotide to a fused silica substrate comprises:

coating the substrate with a solution of amino propyl thriethoxy silane;

linking the oligonucleotide that is to be immobilized to a linker;

depositing the linked oligonucleotide to the coated substrate; and

incubating the substrate, and

wherein the linker comprises Bis succinimydl suberate-homobifunctional NHS-ester.

48. A method for making an assay plate for detecting the presence of a mobile oligonucleotide that binds to an immobilized known oligonucleotide, said method comprising the steps of:

covalently binding said known oligonucleotide to a fused silica substrate to immobilize the known oligonucleotide;

washing said substrate to remove any of said known oligonucleotide that fails to bind to said substrate; and

drying said substrate and said bound immobilized oligonucleotide,

wherein the drying step is carried out in an atmosphere of nitrogen.

49. A silica or glass support bearing a nucleic acid probe covalently linked to the support in a dried form, the probe operative to bind a target nucleic acid.

50. The support of claim 49 that is silica.

51. The support of claim 49, wherein the nucleic acid probe is an oligonucleotide.

52. The support of claim 49, wherein the probe and the target nucleic acid are complementary.

53. The support of claim 49, bearing a plurality of nucleic acid probes covalently linked to the support in dried form in different defined locations of the support.

54. The support of claim 49, comprising at least 10,000 probes.

55. A method for making a support for analyzing a target nucleic acid comprising:

forming a nucleic acid probe linked to a glass or silica support through a covalent linkage;

contacting the nucleic acid probe with a target nucleic acid whereby the target nucleic acid binds to the probe;

detecting the target nucleic acid bound to the probe;

stripping the target nucleic acid from the probe;

drying the support and the probe.

56. A method for analyzing a target nucleic acid, comprising

providing a glass or silica support covalently linked to a nucleic acid probe in dried form:

contacting the support with a solution comprising a target nucleic acid, whereby the target nucleic acid binds to the probe;

detecting the target nucleic acid bound to the probe.

57. The method of claim 56, wherein the target nucleic acid is labelled.

58. The method of claim 56, wherein the support is covalently linked to a plurality of nucleic acid probes occupying different known locations on the support.--